

AMENDMENTS TO THE CLAIMS:

This listing of claims will replace all prior versions, and listings, of claims in the application:

LISTING OF CLAIMS:

1. (currently amended) An apparatus for continuous casting of molten metals, the molten metal being continuously cast using a casting mold, said apparatus comprising:

electromagnets each comprising an iron core and ~~a coil~~ plural coils wound over said iron core, said electromagnets being arranged in a facing relation on opposite sides of said mold along a transverse width thereof to lie side by side along a longitudinal width of said mold; and

a single-phase AC current power supply connected to each coil for supplying a single-phase AC current to each coil.

2. (original) The apparatus according to claim 1, wherein said iron core comprises individual single iron cores separate from each other, or a comb-shaped iron core having a comb-teeth portion over which the coils are wound.

3. (original) The apparatus according to claim 1, wherein said iron core comprises a comb-shaped iron core having a comb-teeth portion over which said coils are wound and a root portion over which a second coil is wound, and further comprising a means for supplying a DC current to the second coil.

4. (currently amended) An apparatus for continuous casting of molten metals, the molten metal being continuously cast using a casting mold, said apparatus comprising:

a coil supplied with a DC current for producing a DC magnetic field and ~~a coil~~ plural coils supplied with a single-phase AC current for producing a non-moving, vibrating magnetic field, both said coils being wound over each of common iron cores,

said iron cores being arranged around said mold such that a direction of the magnetic fields produced by said coils is aligned with a transverse width of said mold, wherein,

said single-phase AC current is supplied from a single-phase AC current power supply connected to ~~the~~ each coil.

5. (original) The apparatus according to claim 4, wherein magnetic poles of said iron core are arranged in at least one pair to face each other above or/and below an ejection port of an immersion nozzle.

6-14. (canceled)

15. (new) The apparatus according to claim 1, wherein said single-phase AC current power supply supplies only single-phase AC current.

16. (new) The apparatus according to claim 4, wherein said single-phase AC current power supply supplies only single-phase AC current.

17. (new) The apparatus according to claim 1, wherein each pair of adjacent coils for single-phase AC current on the same side of the mold have phase differences of either  $0^\circ$  or  $180^\circ$ .

18. (new) The apparatus according to claim 4, wherein each pair of adjacent coils for single-phase AC current on the same side of the mold have phase differences of either  $0^\circ$  or  $180^\circ$ .

19. (new) The apparatus according to claim 1, wherein each pair of adjacent coils for single-phase AC current on the same side of the mold have phase differences of  $180^\circ$ .

20. (new) The apparatus according to claim 4, wherein each pair of adjacent coils for single-phase AC current on the same side of the mold have phase differences of  $180^\circ$ .